

Title (en)

CO₂-MEDIATED ETHERIFICATION OF BIO-BASED DIOLS

Title (de)

CO₂-VERMITTELTE VERETHERUNG VON BIOBASIERTEN DIOLEN

Title (fr)

ÉTHÉRIFICATION MÉDIÉE PAR CO₂ DE DIOLS D'ORIGINE BIOLOGIQUE

Publication

EP 3233864 A4 20180808 (EN)

Application

EP 15870597 A 20151119

Priority

- US 201462093730 P 20141218
- US 2015061559 W 20151119

Abstract (en)

[origin: WO2016099789A1] A method of etherifying glycols or other diols by employing renewable reagents is disclosed. In particular, the method involves contacting a diol with an alkylating agent in an alcoholic solvent, catalyzed with a catalyst (carbonic acid) generated in situ (from CO₂). The mono- and di-ether products can serve as valued precursors to an array of renewable surfactants, dispersants, and lubricants, among others.

IPC 8 full level

C07C 41/16 (2006.01); **C07C 43/10** (2006.01); **C07C 43/13** (2006.01); **C07D 307/12** (2006.01); **C07D 307/42** (2006.01); **C07D 493/04** (2006.01)

CPC (source: EP US)

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Citation (search report)

- [XYI] WO 2011136847 A1 20111103 - DOW GLOBAL TECHNOLOGIES LLC [US], et al
- [Y] WO 2013188253 A1 20131219 - ARCHER DANIELS MIDLAND CO [US]
- [XYI] PETER N. GOODEN ET AL: "Continuous Acid-Catalyzed Methylations in Supercritical Carbon Dioxide: Comparison of Methanol, Dimethyl Ether and Dimethyl Carbonate as Methylating Agents", ORGANIC PROCESS RESEARCH AND DEVELOPMENT, vol. 14, no. 2, 19 March 2010 (2010-03-19), US, pages 411 - 416, XP055487888, ISSN: 1083-6160, DOI: 10.1021/op900307w
- See references of WO 2016099789A1

Designated contracting state (EPC)

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